

WISCONSIN ENDANGERED RESOURCES REPORT # 114

Status of the American Marten  
1995 - 1996

By: Adrian P. Wydeven and James E. Ashbrenner

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**SUMMARY**

A total of 12 American marten tracks were observed along 108.9 miles of the Nicolet National Forest and 15 sets of tracks were observed along 94.9 miles of Chequamegon National forest. Statewide as many as 500 - 1000 marten may occur in Wisconsin, but most are concentrated near core areas of the Nicolet and Chequamegon National Forests.

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1997

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RECOVERY OF THE AMERICAN MARTEN  
PERFORMANCE REPORT

JULY 1, 1995 TO JUNE 30, 1996

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- Job 106.2.1 Monitor population  
106.2.2 Determine recovery levels (inactive)  
106.2.3 Enhance population (inactive)  
106.2.4 Communications

Background: The American marten (Martes americana) was listed as a state endangered species in 1972, although it was probably extirpated in Wisconsin at that time. Martens were reintroduced into the northern Nicolet National Forest between 1975-1983. The 1986 Pine (American) Marten Recovery Plan established a goal of 300 martens in the Nicolet and release of 100 martens in the Chequamegon National Forest. Between 1987-1990 139 martens (94 males, 45 females) were released into the Chequamegon National Forest. Martens were released into refuge areas that were established for fishers in the 1950's and 1960's covering 188 mi<sup>2</sup> on the Nicolet and 344 mi<sup>2</sup> on the Chequamegon National Forests. The present report covers activity conducted from July 1, 1995 through June 30, 1996.

JOB 106.2.1 MONITOR POPULATION

Standardized survey routes to assess marten abundance and distribution were established in the Nicolet National Forest in 1983, and in the Chequamegon National Forest in 1991. Track counts were conducted along 4 of 5 routes on the Nicolet and along 3 routes in the Chequamegon National Forest. Surveys were conducted as described by Ashbrenner (1994).

Additional information on marten populations/distribution was obtained from reported observations (Wydeven and Megown 1996) and from volunteer carnivore trackers (Megown et al 1996).

Results and Discussion

A total of 205.8 miles of marten surveys were completed this winter. Deep snow conditions may have reduced activity by martens during part of the winter.

Twelve marten track sets were detected along 108.9 miles of survey on the Nicolet National Forest (Table 1). The marten tracking rate of 11.0 marten per 100 miles of survey was similar to last year (10.1). Marten tracking rates have been down the last two years, perhaps due to reduced marten activity.

Fifteen marten tracks were detected along 94.9 miles of the Chequamegon National Forest. This represented 15.8/100 miles tracked and was slightly above last year's rate of 11.4/100 miles.

It appears that marten abundance may be declining or stabilizing in the two marten (= fisher) management areas. Recent declines may be partially due to poorer tracking conditions, or reduced marten mobility in deep snow.

Density of resident martens was 1.6/mi<sup>2</sup> in Algonquin Park, Ontario and 3.1/mi<sup>2</sup> in undisturbed forest of Maine (Strickland and Douglas 1987). The Maine habitat suitability index suggests a maximum carrying capacity of 1.6 marten/mi<sup>2</sup> (Strickland 1994). If we use a population density of 1 marten/square mile for core area of Wisconsin and assume that about 50% of the marten population is located outside these core areas, the state population might be as follows:

$$[200 \text{ mi}^2 \text{ (Nicolet)} \times 1.0 + 340 \text{ mi}^2 \text{ (Chequamegon)} \times 1.0] \times 1.5 = 810 \text{ marten}$$

A reasonable range might be 500-1000 martens in Wisconsin. This is a crude estimate, but probably within the ballpark of the likely state marten population. Research being conducted by Jon Gilbert may help illuminate the likely densities of martens in northern Wisconsin.

Five reports of marten observations were reported in 1995. Two observations were outside the core marten areas including one near Crivitz in Marinette County, and one near Lake Nebagamon.

Twelve observations of martens were reported by volunteer trackers along 2442 miles of track surveys across northern Wisconsin. Martens were not a target species for these surveys, but were occasionally reported. Most marten tracks were reported from areas near the core marten areas but included two observations in western Oneida and one in western Lincoln Counties. Some of the marten track reports may have been misidentification of fisher tracks.

#### JOB 106.2.4 COMMUNICATION

Two meetings that included discussion of marten management were attended during the fiscal year including the Midwest Furbearer Conference in Ironwood, Michigan on April 2-3, 1996 and Wisconsin DNR Fisher-Marten Advisory Committee meeting on May 23 in Tomahawk. Five talks were given to 545 people that included discussions of marten recovery efforts in Wisconsin. Marten information was published in the Wisconsin Wildlife Surveys report including results of winter marten surveys (Wydeven and Ashbrenner 1995), and reports of rare mammal observations including marten (Wydeven and Megown 1996).

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Table 1. Furbearer track observations along marten survey routes in northern portions of the Nicolet National Forest, winter 1995 - 1996.

Date	Route No.	Snow Depth (in.)	Miles Run	Number of Tracks Observed				
				Marten	Fisher	Coyote	Bobcat	Other
11/10	1	2.5	30.0	5	13	5	1	3 fox 1 porcupine 1 otter
12/20	2	15.0	22.0	5	14	0	2	1 mink 1 otter
01/10	3	17.0	28.5	2	8	6	0	6 fox 1 porcupine
01/10	4	17.0	28.4	0	5	1	0	4 fox 1 otter
<b>TOTALS</b>			<b>108.9</b>	<b>12</b>	<b>40</b>	<b>12</b>	<b>3</b>	<b>13 fox</b>
1995 - 1996 tracks / 100 mi / night				11.0	36.7	11.0	2.8	11.9 fox
1994 - 1995 tracks / 100 mi / night				10.1	28.9	44.7	5.8	1.8 fox
1993 - 1994 tracks / 100 mi / night				17.0	45.2	34.4	3.0	7.5 fox

Table 2. Furbearer track observations along marten survey routes near Clam Lake in the Chequamegon National Forest, winter 1995 - 1996.

Date	Route No.	Snow Depth (in.)	Miles Run	Number of Tracks Observed				
				Marten	Fisher	Coyote	Bobcat	Other
12/27	3	17.0	22.3	8	6	3	0	6 fox 4 dogs 5 wolves
01/10	2	18.0	20.5	1	3	1	0	2 wolves
03/07	1	32.0	24.5	3	9	0	0	2 dogs
03/20	2	20.0	27.6	3	4	5	0	2 dogs 8 fox 3 wolves
TOTALS			94.9	15	22	9	0	14 fox 10 wolves 8 dog
1995 - 1996 tracks / 100 mi / night				15.8	23.2	9.5	0	10.5 wolves 14.8 fox
1994 - 1995 tracks / 100 mi / night				11.4	36.1	26.6	0	20.9 fox
1993 - 1994 tracks / 100 mi / night				23.9	33.8	19.7	14	5.6 wolves 26.8 fox